

System and Method for Leveraging Independent Innovation in Entertainment Content and Graphics Hardware

Abstract

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A system and method is presented that leverages independent innovation in entertainment content and graphics hardware. In this system and method, the current image generation run-time application is replaced with a new framework defining the connectivity, features, and behavior necessary to implement a graphics system. All this takes place in the context of a software platform utilizing a late-integration mechanism that dynamically integrates the various real-time components in a run-time application. Ultimately displacing hardware as the central focus of development efforts, this software platform functionally is the graphics application, at least as viewed by the simulation host computer, database developers, and those responsible for visual system procurement and maintenance. An innovative software architecture, the Graphical Application Platform (GAP) is presented. The GAP builds on image generator, workstation, and scene graph success by extending the concepts of platform and framework into the real-time graphics domain—bridging the gap between image generation concerns and contemporary hardware and software realities by decoupling content, hardware and applications. This new approach also provides technology to address emerging concerns related to the selection and acquisition processes in the context of new low-cost, high-performance graphics hardware.

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